CLAIMS

1.   A method and apparatus for a bandwidth adaptive image compression/decompression scheme comprising:

using a protocol between sender and receiver wherein said protocol calculates bandwidth latency of the connection;

choosing a compression scheme based on the results of said protocol;

transmitting the most interesting data first;

discarding repetitious data; and

calculating the perceptual degradation of said image for various compression schemes.

2.   The method of claim 1 wherein said step of using a protocol is done periodically.

3.   The method of claim 1 wherein said step of using a protocol is based on a dynamic feedback loop.

4.   The method of claim 1 wherein said compression scheme is lossy for a sub-band coded progressive strategy.

5.   The method of claim 1 wherein said compression scheme is lossless for a non sub-band coded progressive strategy.

6.   The method of claim 1 wherein said step of choosing a compression scheme depends on the latency of the connection.

7.   The method of claim 1 wherein said step of choosing a compression scheme depends on the amount and type of said data to be transmitted.

8.   The method of claim 1 wherein said step of choosing a compression scheme

5   depends on said scheme that uses CPU time conservatively.

9.   The method of claim 8 wherein said step of choosing a compression scheme depends on the average decay of latency of said connection.

10   10.   The method of claim 1 wherein said step of transmitting is decided by a wavelet transform scheme.

11.   The method of claim 1 wherein said step of discarding is done when said connection is down for a short period of time.

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12.   The method of claim 1 wherein said step of calculating is supplemented with the results of said protocol.

13.   A computer program product comprising:

20   a computer usable medium having computer readable program code embodied therein configured to create a bandwidth adaptive image compression/decompression scheme, said computer product comprising:

computer readable code configured to cause a computer to use a protocol between sender and receiver wherein said protocol calculates bandwidth latency of the connection;

computer readable code configured to cause a computer to choose a compression scheme based on the results of said protocol;

computer readable code configured to cause a computer to transmit the most interesting data first;

5   computer readable code configured to cause a computer to discard repetitious data; and

computer readable code configured to cause a computer to calculate the perceptual degradation of said image for various compression schemes.

14.   The computer program product of claim 13 wherein said computer readable code

10   configured to cause a computer to use said protocol periodically.

15.   The computer program product of claim 13 wherein said computer readable code configured to cause a computer to use protocol based on a dynamic feedback loop.

15   16.   The computer program product of claim 13 wherein computer readable code configured to cause a computer to choose a lossy compression scheme for a sub-band coded progressive strategy.

17.   The computer program product of claim 13 wherein computer readable code

20   configured to cause a computer to choose a lossless compression scheme for a non sub-band coded progressive strategy.

18.   The computer program product of claim 13 wherein said computer readable code configured to cause a computer to choose a compression scheme depending on the

25   amount and type of data to be transmitted.

19.   The computer program product of claim 13 wherein said computer readable code configured to cause a computer to choose a compression scheme depending on said scheme that uses the CPU time conservatively.

5   20.   The computer program product of claim 19 wherein said computer readable code configured to cause a computer to choose a compression scheme depending on the average decay of latency of said connection.

21.   The computer program product of claim 13 wherein said computer readable code 10   configured to cause a computer to transmit the most interesting data is decided by a wavelet transform scheme.

22.   The computer program product of claim 13 wherein said computer readable code configured to cause a computer to discard repetitious data is done when said connection is 15   down for a short period of time.

23.   The computer program product of claim 13 wherein said computer readable code configured to cause a computer to calculate said perceptual degradation of said image for various compression schemes is supplemented with the results of said protocol.

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